DOCUMENT RESUME

ED 313 519 CE 053 682

TITLE	Working Women: Employment Barriers and Special Needs. Handbook.
INSTITUTION	Institute of Applied Research, St. Louis, MO.
SPONS AGENCY	Missouri State Council on Women's Economic Development and Training, Jefferson City.
PUB DATE	May 89
NOTE	42p.
PUB TYPE	Guides - Non-Classroom Use (055) -- Reports - Research/Technical (143)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Day Care; Disadvantaged; Displaced Homemakers; *Employed Women; *Employment Patterns; *Employment Problems; Employment Programs; *Equal Opportunities (Jobs); Federal Programs; Job Training; Nontraditional Occupations; Outcomes of Education; Postsecondary Education; Sex Bias; *Sex Discrimination; Womens Education; Work Experience
IDENTIFIERS	*Carl D Perkins Vocational Education Act 1984; *Job Training Partnership Act 1982; Missouri

ABSTRACT

This handbook is a summary of research that was a follow-up to a comprehensive study of women and employment conducted in 1987. In that study, a statewide sample of working women in Missouri was asked about problems ("barriers") they had experienced in relation to work. The data were analyzed in terms of women reporting the most severe problems, education/training/work experience problems, women of different marital status, women who were working part time or full time, child care problems, and availability of resources. Another part of the study summarized in this report involved surveys of women from special populations, such as women who had participated in the Job Training Partnership Act program in Missouri and women attending programs for displaced homemakers and disadvantaged women under the Carl D. Perkins Vocational Education Act. The third part of the study reported here examined education and training trends and employment trends among Missouri women. Results are presented, with illustrative figures and tables, for each area of barriers studied and for each group of women. (KC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED313519

WORKING WOMEN

EMPLOYMENT BARRIERS AND SPECIAL NEEDS

HANDBOOK

Prepared for

The Missouri Council
on Women's Economic Development and Training

Prepared by

the Institute of Applied Research
1047 South Big Bend, Suite 201
St. Louis, Missouri 63117
(314) 645-7444

May, 1989

CE053682

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R Sterloz

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

Table of Contents

Part		
	Introduction	1
One:	**Barriers to Employment of Missouri Women**	2
	A. Types of Problems Encountered by Women in Getting or Advancing in Jobs	2
	B. What Types Women Report the Most Severe Employment-Related Problems	3
	C. Educational and Work Experience Deficiencies	4
	D. Marital Status	8
	E. Employment Status	11
	F. Child Care	12
	G. Access to Resources	13
Two:	**Employment Barriers of Women in Employment and Training and Special Support Programs**	16
	A. Employment Before and After JTPA Participation and Reported Barriers to Employment	16
	B. Satisfaction with the Jobs Training Partnership Act Program	19
	C. Child Care	25
	D. Women's Written Responses about the Programs and about Employment Opportunities	26
Three:	**Trends in Education and Employment**	29
	A. Vocational Education	29
	B. Occupational Trends	34

Introduction

This handbook is a summary of research and analysis that was a follow-up to a comprehensive study of women and employment conducted by the Institute in 1987. In the 1987 study a statewide sample of working women or women who had worked before was asked about problems ("barriers") they had experienced in relation to work. The first task of this study involved an extended analysis of these responses in terms of women reporting the most severe problems, education/training/work experience problems, women of different marital statuses, women who were working part time or full time, reports of child care problems, and availability of resources.

Another part of the 1987 study involved surveys of women from special populations. Two of these were women who had participated in the Jobs Training Partnership Act program in Missouri and women attending special programs for displaced homemakers and disadvantaged women under the Carl Perkins act. In the second part of the present study further analysis was conducted of the responses of the women in these groups. Their background characteristics were re-examined. The relationship between their employment before and after participation in programs and their barriers to employment was examined. Their satisfaction with the program and their barriers to employment was also analyzed. Child care problems of these groups were also examined. Finally, a complete analysis of extended written responses of the women was conducted.

In the third part of the study education and training trends among Missouri women were examined. Trends in employment among women in Missouri were also analyzed.

1. Barriers to Employment of Missouri Women

A. Types of Problems Encountered by Women in Getting or Advancing in Jobs.

In a statewide telephone survey of 1,521 Missouri women who were working or who wanted to work, women reported a wide variety of problems that they encountered in getting or advancing in jobs. A factor analysis conducted on their responses found seven major types of problems experienced by a large number of women.

1. Self Confidence.

This dimension involves women's concerns and confidence about their qualifications, abilities on the job and in applying for jobs, and in their personal appearance. This category is consistent with other research which has often found that women (more often than men) tend to internalize the cause of the problems they encounter in seeking employment or moving up the career ladder. As a result women may find themselves more often than men the victims of self-fulfilling prophecies of their own making.

2. Education/Experience.

This factor is based on the views of many respondents that they face problems in getting the jobs they wanted or advancing in them because of deficiencies in their education or because of a lack of skill training or work experience. At the same time, many women reported problems in finding out about job openings, of being "out of the loop", especially when competing against the "old-boys network."

3. Family Responsibilities

Two types of problems tend to coalesce around this factor; one more social psychological and one very practical. The first has to do with role conflict experienced by many women who find themselves pulled in opposite directions by the requirements of their jobs or careers, on the one hand, and the demands of their homemaker/mother roles on the other. The second involves women with young children with child care needs. Child care--its cost, quality, and/or availability--was a particular problem in single parent families where the presence of children made employment both more difficult and a greater economic necessity.

4. Discrimination

This dimension involves the perception of gender discrimination in hiring practices and when decisions are made about promotions. It also involves the sense of being relegated to jobs and positions within occupational areas that pay less and have shorter career ladders, and by the experience of earning less than male co-workers. It also involves the sense of being

trapped in low-paying jobs or with discriminatory employers due to economic necessity and a lack of alternatives.

5. Job Benefits

This factor involves certain characteristics of jobs themselves (rather than personal or family issues) and most often has to do with what is seen as inadequate health insurance or other job-related benefits. This does not mean that the importance of such problems is unrelated to a woman's personal or family situation.

6. Moving/Travel

This factor involves certain requirements of jobs or conditions of hire. It was most often associated with problems resulting from jobs that require moving or a great deal of travel.

7. Health/Transportation

This factor tended to involve some problem in the life of the respondent that made working or getting to work difficult. These problems most frequently had to do with personal health or a lack of transportation.

B. What types of women report the most severe employment-related problems?

Serious employment barriers are experienced by women across all socio-economic groups. However, certain types of women have problems that are clearly more severe. Women most likely to report severe problems along the seven dimensions described above were:

- o poorer
- o single heads of households
- o younger
- o currently unemployed but looking for work or currently working in very low paying jobs
- o victims of sexual harassment and/or gender discrimination on the job

No significant variation was found in the distribution of women with extreme problems in different parts of the state, or in urban vs. rural areas. Women with multiple characteristics--that is for instance, a young, poor, single head of a household--tended to have especially acute problems across most of the dimensions.

The following table shows the characteristics of women who reported severe problems significantly more often than their counterparts on each of the seven barrier dimensions.

Table 1. Types of Severe Barriers to Employment by Types of Missouri Women

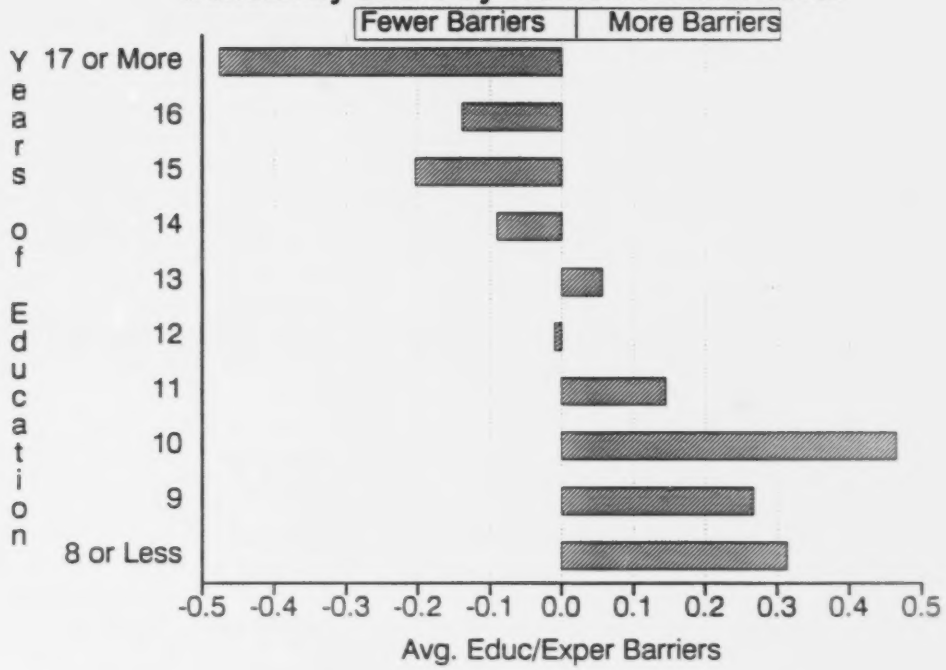
Women Who Report Problems in:	self confid	educ/ exper	fam respn	dis- crim	job benef	mov trv	hlth trans
o unemployed and looking for work	x	x	x	x	x	x	x
o single heads of households	x	x	x	x	x		x
o less household income	x	x			x	x	x
o less personal income	x	x	x				x
o younger	x	x	x	x	x		
o victims of sexual harrassmt			x	x	x		x
o dissatified with present job	x	x		x	x		
o have children			x		x		
o black		x			x		
o less education		x					x
o in non-profl, non-technical jobs	x						x

C. Educational and Work Experience Deficiencies

Since education, training and work experience and job seeking knowledge seemed to be interrelated in the responses of the women surveyed, an analysis was conducted of how different types of women from different backgrounds responded. The basic research question was: What types of women in the state are most likely to have experienced these as barriers to employment or to advancement on the job?

First, as might be expected, women with severe deficiencies in education--those who lack a high school diploma--were much more likely to have experienced such difficulties, to be aware of education and work experience as a problem and to report it when interviewed. The graph shown in Figure 1 illustrates this relationship. The bars show the extent to which women in the

Figure 1. Average Education/Experience Deficiency Score by Women's Educ. Level



state with varying education levels report education/training /work experience as a barrier to employment.

But women with poor educations were not the only ones who reported such problems. A more complex analysis was conducted (multiple regression) that considered many characteristics of women at once. This analysis showed **actual** education to be only one factor among several. This might also be expected in that problems with education, training and work experience as well as networking are related to a woman's aspirations as much as to her actual background. A woman who aspires to a job or position that requires more education than she has and who has failed to obtain that job may report education as a barrier even though she may, relatively speaking, be well educated.

This may, in fact, be reflected in another set of women who were shown to report this problem more often. Missouri women who rate their jobs lowest, including women across income categories, tend also to be most concerned with education and experience. Women who feel dissatisfaction with their jobs, or have recently quit their jobs because of dissatisfaction, or who aspire to advancement and change in their current jobs all fit this category. Their responses are shown in Figure 2. As can be seen women who rated their present or past job very poorly tended to report many more and more several education/experience deficiencies.

Younger women are more likely to think that education, training, work experience and knowledge about how to find a job are barriers to employment for them. This may result from a high value placed on the importance of education by younger women. It may also be, at least in part, that this reflects a lack of confidence of younger women based on limited contact with the job market.

Women who were unemployed but seeking jobs were also more likely to report these types of education and experience problems. It is likely that such women have a heightened awareness of the importance of these factors in finding employment and that the problems associated with them are highly salient to them. This can clearly be seen in the graph shown in Figure 3.

As a group, women without wage-earning partners--primarily divorced, separated and never married women--tended to report problems associated with education and experience much more often and to rate them more severely. This was particularly the case for women with two or more children. These findings are illustrated in Figure 4 where we can see that unmarried women with two or more children reported the most severe problems associated with these factors and that married women with no children or only one child reported the least problems.

Figure 2. Average Education/Experience Deficiency Score by Job Rating

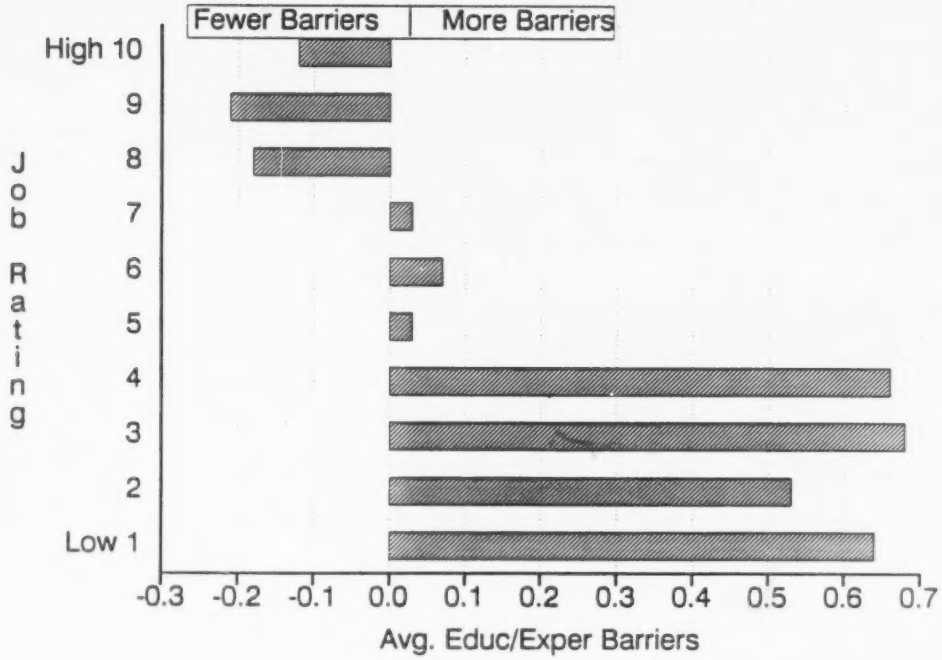


Figure 3. Average Education/Experience Deficiency Score by Engagement with Work

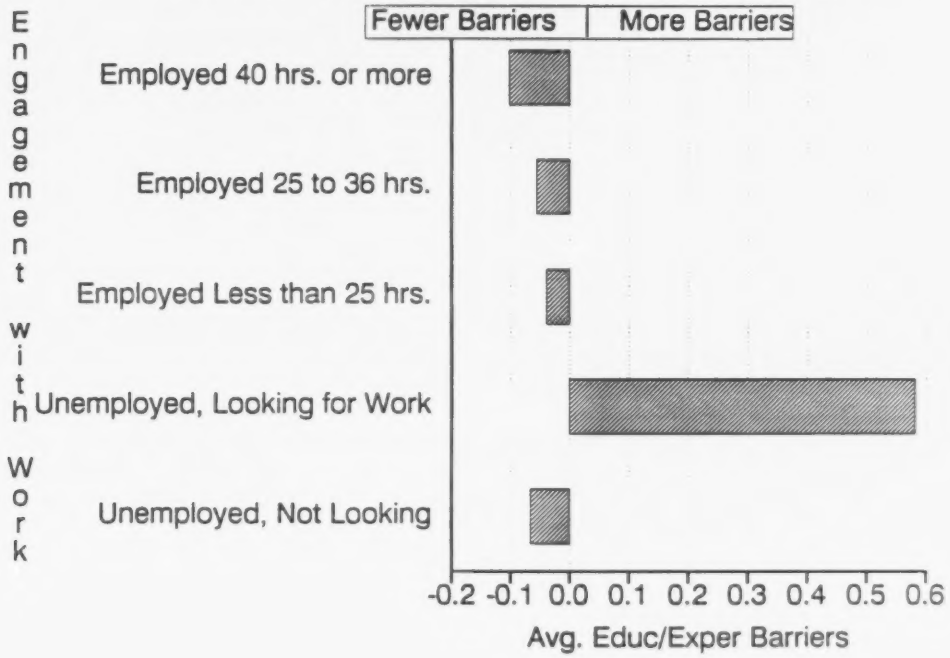
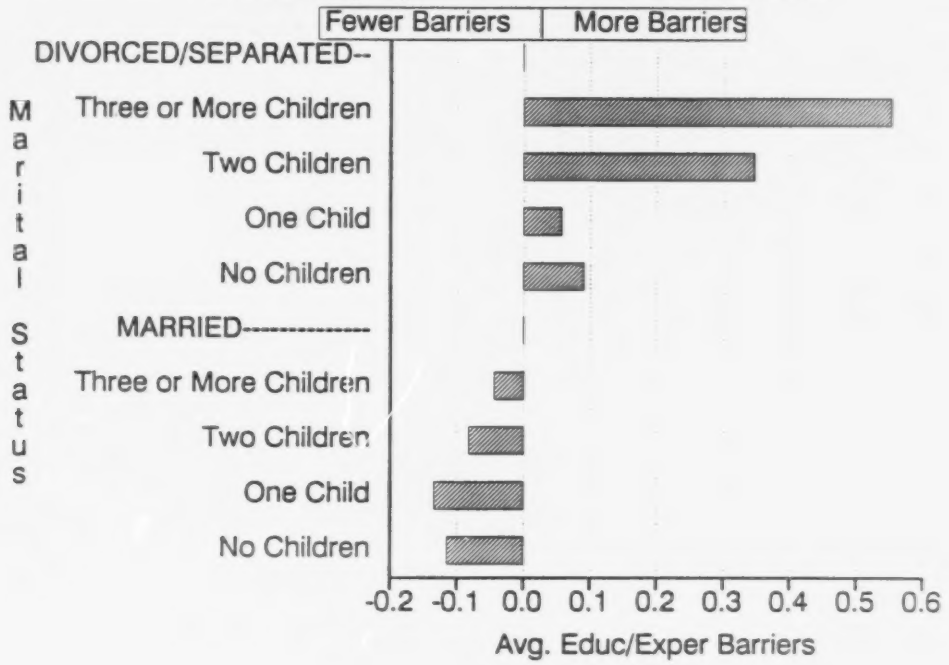

Fewer Barriers
More Barriers
Engagement with Work
Employed 40 hrs. or more
Employed 25 to 36 hrs.
Employed Less than 25 hrs.
Unemployed, Looking for Work
Unemployed, Not Looking
-0.2 -0.1 0.0 0.1 0.2 0.3 0.4 0.5 0.6
Avg. Educ/Exper Barriers

Figure 4. Average Education/Experience Deficiency by Marital St. & No. Children



D. Marital Status

Women who were divorced, separated or never married were much more likely to report severe employment barriers on each of the seven employment barrier dimensions described earlier, including, as we have just seen, more education/experience barriers. These women tend to be dependent on their own resources for their livelihood and their average household income is less than that of married women. This is shown in Table 2. Only about 12 percent of the married women surveyed had household incomes less than $15,000 as compared with over half the women who were not married. This arises for at least three reasons. 1) Many of the married households have two wage earners. 2) Men continue to earn 30 to 40 percent more than women on the average. 3) Unmarried women with children receive pitifully small amounts of child support from absent fathers. In the area of personal income, on the other hand, married and unmarried women were about equal. In fact, a slightly greater percentage of married women fell in the less than $15,000 category. And, although it is not apparent in this table, divorced and separated women actually had average personal incomes several hundred dollars higher than married women, since they are employed in larger numbers. For example, 64 percent of the unmarried versus 50 percent of the married women were employed full-time.

Table 2 Household Income and Personal Income of Women by Marital Status

Marital Status	Incomes		
	Household Income		
	Less than $15,000	$15,000 to $30,000	$30,000 and more
Married	12.2%	39.5%	48.3%
Divorced, Separated Widowed, Never Married	52.7%	31.8%	15.5%
	Personal Income		
	Less than $15,000	$15,000 to $25,000	$25,000 and more
Married	68.6%	22.5%	8.9%
Divorced, Separated Widowed, Never Married	62.0%	29.8%	8.3%

An overriding factor, therefore, in the lives of most unmarried women is that, as families, they are much poorer. Some of the differences between married and unmarried women in regard to reported education/experience barriers to work may be related more to this fact than to their marital status per se. Among the women surveyed it was found that because their household incomes were lower unmarried women may have been more likely to believe that education, training or work experience could improve their economic lot. It may also be that a combination of lower income and reliance on their own resources leads to higher aspirations or, at least, greater economic need for increased personal earnings. However, unmarried women, as a group, are younger and have somewhat less actual education. These characteristics are also related to education/experience employment barriers.

Considering the full range of responses of the women in the study, two other barriers stand out as related to marital status. Married women tended to report significantly fewer and less severe barriers in the areas of discrimination and qualifications and on-the-job benefits.

Figure 5 shows that divorced, separated and never married women were more likely to report discrimination barriers. These included being overqualified, being too old or too young, prejudice against women by an employer or supervisor and a discriminatory salary or reward system.

In Figure 6 it can be seen that divorced and separated women tend to report significantly greater barriers surrounding on-the-job benefits. These included health insurance and other benefits.

Figure 5. Avg. Discrimination-Qualification Score by Marital Status

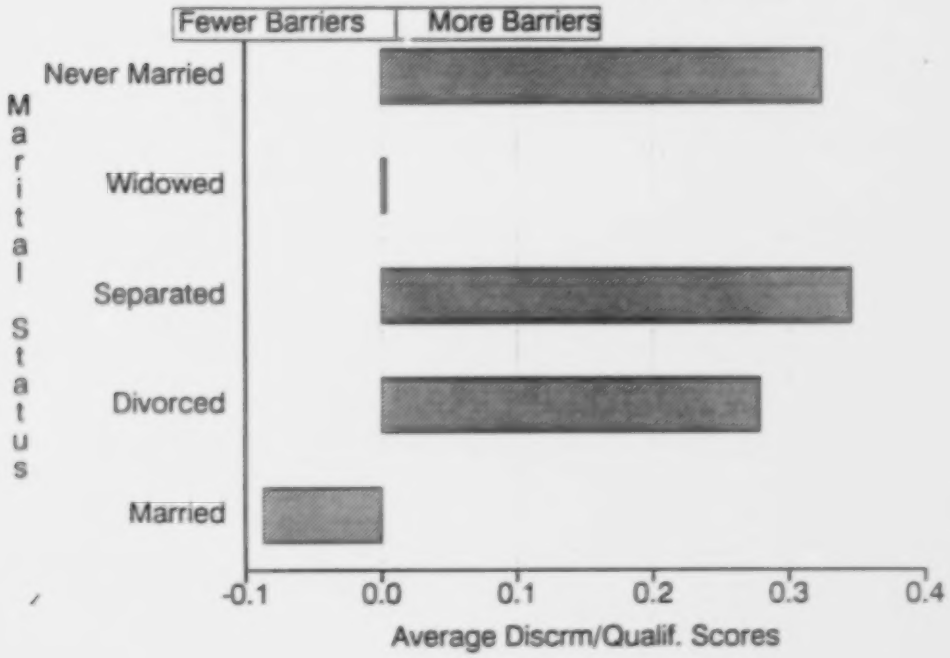
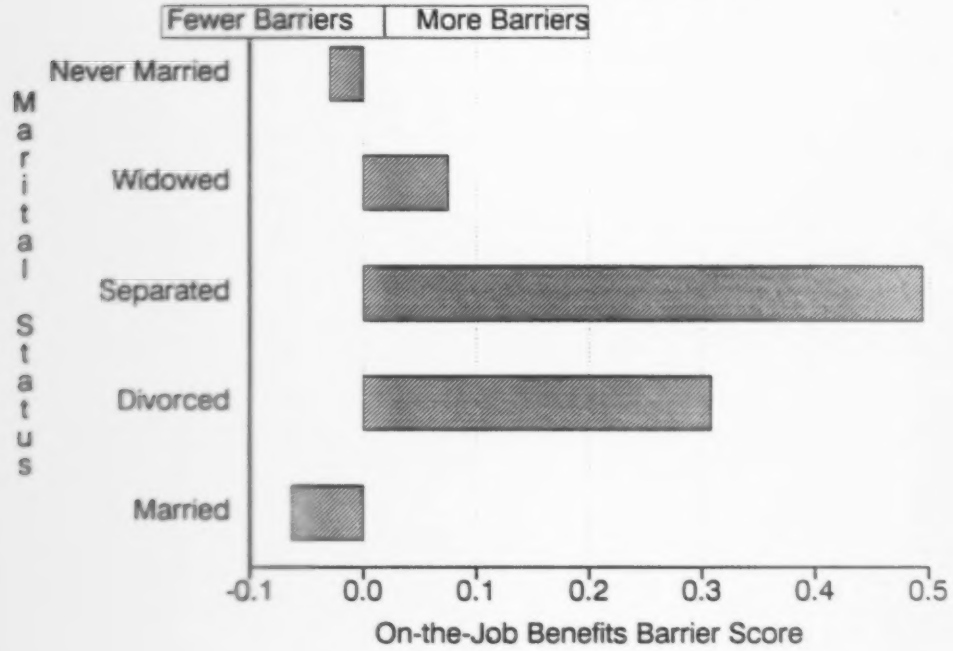


Figure 6. Average On-the-Job Benfits Barrier Score by Marital Status



E. Employment Status

One of the tasks in this project was to examine the differences between women who worked full-time and those who worked part-time. To simplify the analysis these two categories were created:

1. women who worked less than 25 hours per week, and
2. women who worked 25 hours per week or more.

There are differences in the background and characteristics of these two groups that may explain their participation in employment. These are shown in Table 3. One of the reasons for working less than 25 hours per week is that such women had more children on the average. And, those that had children tended to report more child care barriers. Women who worked less also had less education. Lower education levels may also contribute to decreased participation in the work place, although the women who worked less did not appear to regard this as a barrier to their employment. The average household income of the women who work more was higher but the difference was not great. The majority of women in both groups were married, and the similarity between the two income levels was a result of the husband's income. However, as might be expected, the difference in personal incomes was much greater. Personal income is correlated with the number of hours the women worked.

Table 3. Characteristics of Women Who Worked More and Less

Employment Participation	Average Number of Children	Percent Reporting Child Care Barriers*	Average of Years Education	Estimated Avg. Household Income	Estimated Avg. Personal Income
Less than 25 Hours per Week	1.35	33.3%	12.48	$ 24,400	$ 4,800
25 Hours or More per Week	.87	22.0%	13.18	$ 26,100	$ 15,200

* Includes only women with dependent children under 18 years old.

A more refined measure of the participation of women in work was the number of hours worked. The Family responsibility measure was the most important predictor of the differences reported in hours worked. This means that when all other variables examined were held constant the single most important set of factors that explained why women chose to work part-time rather than full-time were those encompassed by this measure: feeling your place is in the home, conflict with your husband's job or career, problems with child care and other family responsibilities.

The second most important predictor of the degree of participation in work was the combined barrier measure, on-the-job benefits. This measure centered on the women response to the barriers having to do with medical insurance and other job benefits. This measure also included the concepts of difficult working hours. Women's participation in the work force is affected by the quality of jobs available to them. At the same time it is evident that many women who work do so out of sheer economic necessity--especially, but not only, women who are single heads of households and single parents--and economic necessity limits the choice one has in where and how much to work.

F. Child Care

Child care is a significant problem for women who are working or have worked. Over one-fourth of the women with children surveyed cited child care as a problem for them in relation to their employment. This does not mean that finding child care was an insurmountable difficulty for all the women. Over two-fifths of those who cited this as a problem were working full-time. Even these women, however, may continue to be dissatisfied with cost, convenience and quality of the care they have found. What this finding does mean is that child care is a significant problem for hundreds of thousands of Missouri families in which the mother has chosen to work.

Child care may indeed keep certain women from working at all. Of the women who cited child care problems the largest category was unemployed women who indicated that they were seeking employment. Over 40 percent of this group said that child care was a barrier.

The problems of child care have to do with its cost, its quality and its availability. About two-thirds of the women who reported child care problems reported that cost was a factor (cf. Table 4). Women's income (either personal or household), however, was not related to the tendency to mention child care problems generally. This is because child care is a multifaceted problem involving issues of quality and availability in addition to cost. The cost of child care, however, was cited significantly more often by women with lower personal and household incomes. Child care is problem across income groups but the cost of child care is a greater barrier for women with less income.

About half of the women who cited child care problems indicated concerns about quality and forty-five percent mentioned problems with its availability. It was originally thought the problems with availability might be correlated to the number of licensed facilities in an area because this does vary greatly in different parts of the state. However, such a correlation was not found which indicates that the problem is a serious one in all

parts of the state including areas with greater numbers of licensed facilities. For many women the problem is much more extensive than simply the presence or absence of resources. There is a critical need for examination of the **nature** as well as the **number** of those resources.

Table 4 Women Reporting Child Care to be a Barrier to Employment Who Reported Cost, Convenience and Quality as Factors in their Response

Aspects of Child Care	Percent Women Reporting
Cost	62.8%
Convenience	44.9
Quality	51.8

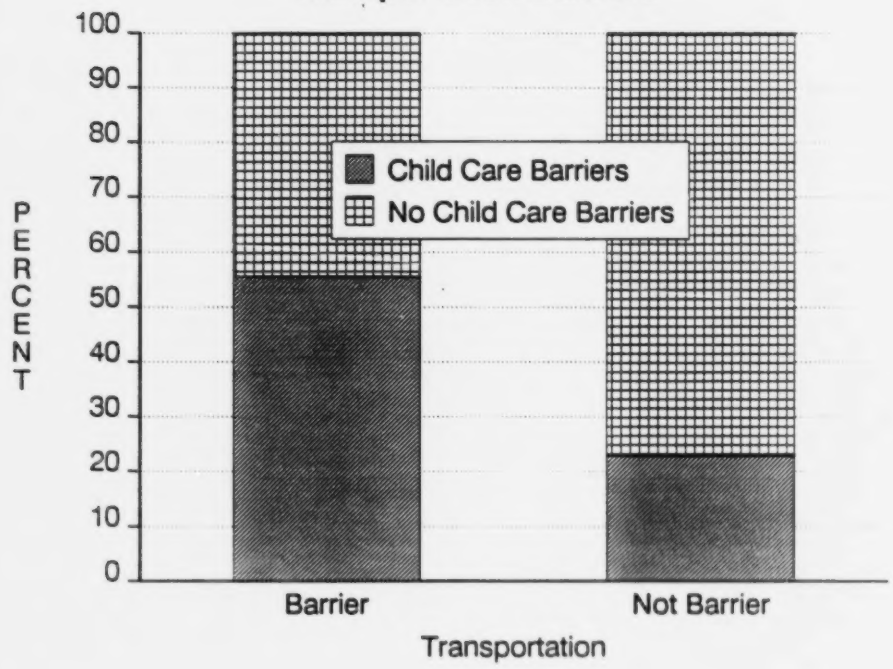
For one group of women the availability and location of child care facilities was a particular problem. These were women without their own means of transportation. They were much more likely to cite child care as an employment barrier. We can see this relationship in Figure 7. Well over half the women who said that transportation was a barrier to employment also said that child care was a barrier.

This study establishes to some degree the extent of the child care problem in the state for women who are employed or are seeking employment. It shows that the problem is multifaceted, involving issues of availability, cost, quality, convenience and transportation. It alsc shows that it is a significant factor in women's capability to find and hold a job. Nevertheless, there are many details concerning the amount of child care currently available, its characteristics and what parents desire in the way of child care that we do not know. Further study of this issue in Missouri is needed.

G. Access to Resources

An analysis was conducted of the availability of education and training resources, of jobs, and of other resources in various parts of Missouri. The question was whether availability of such resources might be reflected in the responses of women concerning problems they had encountered in finding and retaining employment.

Figure 7. Child Care Barriers and Transportation Barriers



From a descriptive standpoint the analysis showed that there is a rather large disparity between the employment and training resources available in various parts of the state. A comparison of JTPA Service Delivery Areas revealed that as a rule rural portions of the state have fewer jobs per person available and many fewer education and training opportunities. The personal and household incomes of women tend to be lower in areas with fewer jobs and educational opportunities and higher unemployment rates. Job development and resource enhancement in these areas may have direct effects on the improvement of incomes of women in the state.

The reported barriers of women tended to be related to the resource dimension, but with a major exception. Poorer parts of urban areas such as those in the City of St. Louis contain many women with multiple barriers in spite of their relative proximity to jobs, schools and support services. Such women have lower incomes. They have less education and work experience and less confidence in themselves, and they tend to express their concerns about these matters. Many women in these areas are in need of special assistance to overcome problems that keep them from taking advantage of resources: high school diploma, supported work experience programs, on-the-job training, job search assistance, and so on.

If the city of St. Louis is excluded several categories of reported problems appear to be related to the presence or absence of resources. Women in areas with <u>fewer</u> job opportunities and women in areas with <u>fewer</u> education resources tended to report more education/experience problems. Both these dimensions (jobs and education resources) are correlated with rural-urban location or population density. It follows that women in these areas are reporting a greater perceived need for education, training and work experience opportunity. Women who worked part-time in such areas of low resources tended to report education/experience problems even more often.

Full-time working women in areas with <u>fewer</u> education and training resources tended to report more family responsibility problems. This would seem to indicate a somewhat greater need for support efforts such as child care assistance. Full-time working women in areas with <u>more</u> education and training resources tended to report more discrimination barriers. This shows a heightened awareness of women in these areas of such issues as gender and age discrimination, but also indicates that more women have experienced such problems in these areas.

2. Employment Barriers of Women in Employment and Training Programs and Special Support Programs

In the 1987 Institute study there was an interest in women with special needs: low income women, displaced homemakers, women in employment and training programs, professional women, and so on. Several special studies were conducted. Among these were two surveys of women in training and employment-related programs. The first involved women who had participated in JTPA (Jobs Training Partnership Act) programs around the state. The second involved women currently in special programs for displaced homemakers and other low-income women funded through the Carl Perkins (CP) Act. These surveys provide valuable information from two groups of low-income women in the state who turned to public programs for assistance. Both groups consisted of large numbers of women with multiple problems and needs, few employable skills and little work experience, and limited formal education. The median age of the CP group was 35 and the median age of the JTPA group was 29. Most of the participants in the two programs were white; 17% of the JTPA women and 8% of the CP women were black. Between 20 and 30 percent of the women in each group relied on public assistance for support.

A. Employment Before and After JTPA Participation and Reported Barriers to Employment

Training, Obtaining Employment and Job Retention. Table 5 lists several categories of employment outcomes and shows percentages of women for whom this outcome was true in the three activity areas the three training categories. Under classroom skill training there is a "total" category which contains the percentage for all women who were enrolled in this activity. In addition, there were enough women in office and clerical training and in medical related training to count separately. The remainder were grouped in the "other" category, which included sales, other service and a other miscellaneous instructional codes.

Four employment outcomes were considered. Entered employment after JTPA includes any woman who was counted in the statewide MIS as an entered employment. Employed at the time of the survey includes all women who reported in the survey that they were working. Improvement in wages indicates the extent to which the earning power of the women shows some increase. Employed in the same job means those women who were employed at the time of the survey who reported that they were working at the same job as when they completed the JTPA program. This might be interpreted as a measure of job stability.

Table 5 shows a hierarchy of effectiveness in the outcomes for JTPA women. Women in OJT entered employment in greater proportions. More of them tended to be employed at the time of the survey. Except for women in medical classroom training, more of the OJT participants showed an improvement in earnings after the program. And, again except for women in medical classroom training, a greater proportion of the OJT women who were employed when they completed the survey were working at the same job as they found when they left JTPA. It should also be remembered that women in OJT constituted the largest single group of women in any activity.

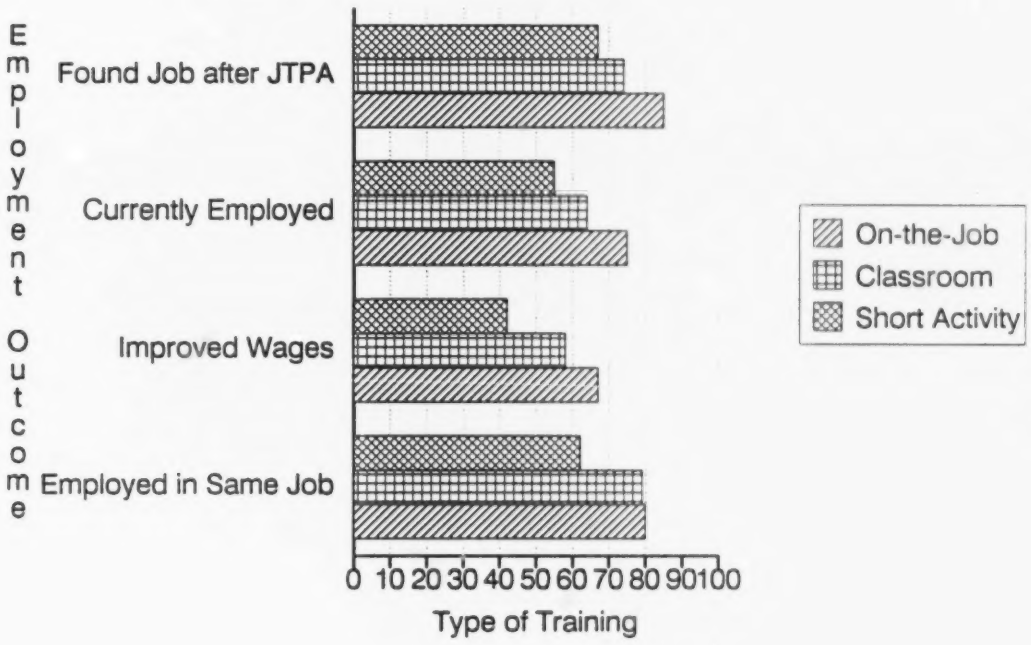
Table 5. Employment Outcomes for JTPA Women by JTPA Activity

Employment Outcome	Activity					
	On-the-Job Training	Classroom Skill Training				Other
		Total	Office	Medical	Other	
Entered Employment After JTPA	85%	74%	74%	83%	71%	67%
Employed at Time of Survey	75%	64%	65%	70%	47%	55%
Improvement in Wages after JTPA	67%	58%	52%	73%	59%	42%
If Employed, Employed in Same Job	80%	79%	72%	89%	83%	62%

When OJT, classroom training total and other activity are considered in that order in each case the effectiveness follows the same order. In terms of finding work, retaining the job or any job and earning relatively better wages on-the-job training would appear to be the most desirable activity followed by classroom skill training, and other abbreviated activities would appear to be the least desirable.

One might argue that the basic difference between these groups of women had to do with their background, talents and abilities before they entered the program. The argument would have it that women with the greatest employment potential are

Figure 8. Employment Outcomes for JTPA Women by JTPA Activity



placed in OJT and those with the least potential in job search. This question cannot be answered outside of controlled studies. Research on the effectiveness of employment and training programs, however, tends to support the notion that, for women, the more intensive the training and support provided, the greater the effects on the participants' lives and the longer the effects endure. These results may support this finding. The burden of research, however, would suggest that women are likely to be helped the most by longer term and more intensive efforts. These tend to produce higher incomes, more hours worked per week and longer tenures in jobs. One can argue that programs such as job search assistance are better than nothing and this is often true. Research has shown positive effects for these programs in women's lives as well, albeit less intensive effects. However, the burden on E&T programs is to bring about fundamental shifts in the work lives of women--permanent upward movement in abilities and earnings--and it is hard to imagine this happening, particularly in cases of women who have never worked, without at least classroom training or work experience.

Types of Employment Barriers Cited. In most ways, the types of employment barriers cited by the former JTPA participants were similar to those reported to respondents of the telephone survey. One difference is worth noting. For the JTPA women, in the third factor, family responsibilities, husbands job or career was not relevant and was replaced by transportation difficulties and difficult working hours. This difference is probably due to the fact that over one-third (35.5 percent) of these women were single parents. Thus, conflict with husband is less often a problem for the JTPA women. Secondly, as a group these women had much lower incomes than the statewide sample. Thus, transportation to and from work, difficult working hours, and child care tend to be very much interrelated by cost and income factors. Poorer, single women feel particularly the pinch of responsibility to their children and its relationship to problems in their work life such as lack of transportation and jobs with difficult working hours. In a nutshell the problem is how can she afford to work and be a mother?

Women with Prior Work Experience. The women who had a job before coming into the JTPA program reported different employment barriers principally in ways related to their prior education and work experience. They had work experience, and they also had higher education levels. Therefore, they tended to score low on education/training/work experience problem areas. They also tended to report much more often barriers of discrimination based on their gender or their qualifications than the women who had not been employed.

Education/Experience Factor. Some of the former JTPA participants were significantly more likely to continue to cite educational and experience deficiencies as barriers to employment after having been through the program. These were primarily women who fell into one of three categories:

1) those who received the least intensive services, i.e. those who were not involved in on-the-job training or classroom training activities;

2) those not placed on jobs at the conclusion of their JTPA program; and

3) those who showed no wage improvement after JTPA compared with the wages of the last job.

This third group of participants also reported significantly more family responsibility barriers. This measure is very much related to cost of transportation, child care and difficulties on the job (working hours). Those who did not experience an improvement in their financial situation after JTPA were much more likely to cite these problems and consequently higher family responsibility barrier scores.

The women who found jobs after they completed JTPA and those women who were working at the time of the survey both were significantly less likely to mention education/experience barriers. This can be taken to indicate a degree of satisfaction with their experience in the program. This is born out through the women's responses. For example, of the women employed at the time of the survey, 82.3 percent indicated they thought JTPA had improved their lives as compared to 64.0 percent of the women who were not employed.

Women who were employed at the time of the survey were also less likely to mention family responsibility problems. The lower score on this measure meant that they had experienced fewer problems associated with child care and their sense of responsibility for their children and with transportation to work as well as problems of difficult or inconvenient working hours. This reflects the fact that these women are more likely to have successfully solved these problems since they are indeed working than the women who were not working.

B. Satisfaction with the Jobs Training Partnership Act Program

The reactions of the women to the JTPA program were assessed by a series of questions designed to discover areas of satisfaction or dissatisfaction of the women with the program. In addition, there were spaces for written responses that the women might want to make concerning ways in the which the program could offer more services to women.

The responses of women in a majority of instances were positive and favorable regarding their experience with JTPA. In each case, however, a significant minority was found that was not satisfied with some aspect of the program.

Obtaining Employment. Each woman was asked whether she believed that she could have obtained the job she did if she had

not participated in the JTPA program. Of the women who obtained employment after the program, 43.5 percent indicated that they believed they could have obtained their jobs on their own without the program. The remaining 56.5 percent either answered no or were unsure. This fits with the way in which the women noted that they found their jobs after the program. Fifty percent said that they found their job on their own, 15.6 percent found their job through a friend or relative and 5.3 percent through someone else. About 3 out of every 10 said they obtained their employment through JTPA personnel.

Women's Sense of Improvement in Their Lives and Their Expectation of the JTPA Program.. Each woman who responded to the survey was asked whether she felt her life had been improved through participation in the JTPA program. About one-fifth (21.8 percent) answered no to this question. The remainder thought their lives had been improved: 24.1 percent "a great deal"; 32.2 percent "somewhat"; and, 21.8 percent "a little." Four-fifths of the women who participated, therefore, felt that they came away from participation in the program with something positive in their lives.

Another question asked in this context was whether the women felt that the program had helped them as much as they thought it would. Again, the large majority (69.5 percent) said that it had: 30.2 percent "more than I thought it would" and 39.3 percent "about what I thought." A significant minority (30.5 percent), however, felt that the program had been less helpful than they had anticipated. In many cases these were women who had anticipated some real advancement in the type of employment they could hold and in the wages they were receiving but felt that they had only moved laterally in the job market.

There were many spontaneous responses from women who regarded the program positively to the effect that:

- o JTPA was a wonderful resource that should be made known to more women, or that
- o their work lives had been greatly improved through the help they received from JTPA.

These were usually general comments, although in a few instances women wrote about the improvements that they had experienced in their lives. For example, one individual wrote a letter explaining how "she would not be in her present job without the program." Others expressed sentiments about particular individuals in the program who had helped them. One woman noted that a particular teacher "would never know how much she helped us."

There are many individuals who have very positive experiences in the Jobs Training Partnership Act Program. The surveys upon which this portion of the report are based were seeking women's ideas about problems they might have had with the

JTPA program. For this reason, the emphasis here might appear to be unduly negative. The responses analyzed are of a significant minority of the participants. Satisfaction scores show that most participants had more positive than negative experiences with the program.

The women who were dissatisfied or only mildly satisfied also responded with specific criticisms. Three areas of response seem most germane to this question. These were:

- o obtained a job that paid poorly,
- o did not obtain a job,
- o did not receive the kind of help that could make a difference in one's work life.

The first category, obtained a job that paid poorly, was made up of respondents that noted two different realities about their experiences after JTPA participation.

1. Minimum Wage. The first was that they obtained employment that paid at or near the minimum wage. Many of the respondents in the JTPA sample were single mothers. Eighteen of these respondent wrote extended descriptions and others wrote short descriptions of the problem (or the impossibility) of trying to support themselves and their children, pay for child care and transportation to work while earning $3.35 or slightly more per hour. One divorced woman who received no child support noted that she earned $2.50 per hour working in a dress shop and was forced to also hold down a cashier's job in a restaurant on weekends to make ends meet for her and her daughter. This was not an untypical response from those women who wrote of the problems of low-paying jobs.

2. Women vs. Men. The second problem indicated was that women's jobs pay less than men's. Women pointed out specific instances in which they were paid at or slightly above minimum wages while the male co-workers were paid higher wages, sometimes significantly higher, for the same or similar work.

The second category, did not obtain a job, was mentioned by many of the women who did not find a job after JTPA and in many cases had remained unemployed. It was also a theme of a set of women who did obtain employment but only after some delay. There were many specific problems mentioned in this regard. The following list included those that were mentioned by two or more women.

1. No Jobs. One set of women, who came largely from the very rural SDAs, pointed out that there were very few jobs in their areas. One woman, for example, who came from a small town in south central Missouri noted that there were only a few jobs in her town (grocery clerk or service station attendant) and that they were not typically available to women. There were also

numerous women who believed they needed more assistance in finding work than they had received.

2. Lack of Experience. Some women believed that their problems had been that the jobs they sought, even in the areas in which they were trained, required experience that they did not have.

3. Irrelevant training. There was also a group of women who felt that the reason they did not obtain employment was that they were trained in areas for which there was no demand. For example, one respondent noted that she received classroom training in data entry, but that no employer in her area was hiring data entry personnel.

4. Lack of self-confidence. Some women who did not obtain jobs noted that they lacked confidence. This was a response typical of several older women in the sample who had not worked or had been out of the work force for many years. They tended to relate their lack of confidence to the fact that they did not receive training they felt was competitive or that made them desirable as employees and to their lack of recent work experience. The notion of assertiveness training was mentioned by a few women.

5. Handicaps. These women mentioned instances of discrimination by employers against them because they were handicapped. In two cases women mentioned epilepsy as a handicap.

6. Obesity. A few women wrote accounts of being denied employment because they were overweight. Most often the responses were questions asking how employers could be made to pay attention to a woman's intelligence or abilities rather than simply to her appearance.

These do not exhaust the reasons women gave for not finding jobs. Many mentioned unique circumstances, such as family problems, sickness, etc. that had played a role. In some cases they dropped out of the program for various reasons and simply had not pursed employment.

The third category, did not receive the kind of help that could make a difference in one's work life, was characterized principally by respondents who wanted more from the program than they received. This category overlaps with the previous one in that some of these women believed that their training was irrelevant because they did not get their first choice in training. As with the other questions that were asked of the women, most (62.5 percent) indicated that they had obtained the training they wanted through JTPA. But a relatively large minority (37.5 percent) felt that they had not.

One woman noted that she wanted clerical training, but that these training classes always filled very quickly and she instead

received training in retail sales, and she felt that she would be stuck in a low paying sales job. Another women noted that she was placed in OJT in a restaurant even though she already had several years experience in restaurant work. She felt that she was paid relatively well compared with women in her area (about $560 per month in take-home pay) but that she was in a dead-end job that she had hoped JTPA would help her escape.

Another group of women in this category received only job search assistance. This is an abbreviated activity that usually lasts only a few days (or a few weeks in the case of the more intensive "job club" activity) and assists participants in learning how to find work. One woman in this category asked what good it was to learn how to fill out job applications for work she was not trained to apply for?

Throughout the responses of these women there was an implicit desire for employment that might bring a fundamental change in their lives. The question remains for all employment and training programs, how to bring to a larger number of women the training and resources needed to produce fundamental improvement in their life circumstances. This becomes more imperative as poor women become poorer each year and as the poverty rate among mother-only families continues to increase.

Discrimination Against Women in the JTPA Program. Each respondent was asked whether she felt that men were treated better than women in the program. About one in every eight (12.1 percent) women who responded answered yes to this question. The large majority said no (46.3 percent) or that they did not know whether this was true (41.6 percent). When the written responses of the women who had checked yes to this question were examined, the overriding sentiment that was found was that the types of jobs that are typically available to men, and therefore to men through the JTPA program, paid better. There were also complaints from these women that women were trained less often for the better jobs that men tend to obtain.

Recommend the Program to a Friend. As another measure of their satisfaction with the program the women were asked whether they would recommend the program to a friend. Nine out of ten (89.0 percent) said yes they would. These responses indicate that the participants generally felt positively about the program and that when they answered negatively they usually felt their problems had to do with their particular circumstances. This means that even those whose experiences with the program were negative felt that JTPA could be useful to women.

Satisfaction and Obtaining Employment and Job Retention. Table 6 shows the employment outcome measures (see Table 5) for women who responded most positively on three of the satisfaction questions. The percentages are row percentages: for example, in the first cell 26 percent of the women who had entered employment after JTPA felt that the program had improved their lives greatly as compared with 17 percent of those not entering employment.

The table shows that for each of the employment outcome measures more of the women who had positive outcomes tended to be satisfied. Although it is not shown in this table the converse can be inferred from this table: women with negative or less positive outcomes tended to be less satisfied.

Table 6 Employment Outcomes for JTPA Women by Satisfaction with JTPA

Employment Outcome		JTPA Improved My Life Greatly	JTPA Helped Me More Than I Thought it Would	Received Training I Wanted
Entered Employment After JTPA	Yes	26%	32%	67%
	No	17%	24%	47%
Employed at Time of Survey	Yes	27%	32%	68%
	No	19%	28%	54%
Improvement in Wages after JTPA	Yes	26%	32%	69%
	No	22%	29%	54%
If Employed Employed in Same Job	Yes	30%	32%	71%
	No	21%	33%	60%

This is not particularly surprising. One would expect women who did not find jobs, or who subsequently lost their jobs, or showed no improvement in wages to be less satisfied with an E&T programs. It is useful to note that the largest percentage differences were found on the variable measuring whether the women received the training that they wanted through the program. This shows the greater importance of this factor in the minds of women who experienced less positive results from participation in JTPA.

The analysis presented earlier in this section of the written comments of the respondents concerning satisfaction with the program show that <u>they believe</u> that aspects of the program affected their present work lives--either positively or adversely. This means that satisfaction and dissatisfaction was not just a generalized feeling about the program but arose from rather specific characteristics of their experiences, like not getting the training they wanted or receiving training they thought was irrelevant or finding only dead end, low-paying jobs or any of the other reasons listed.

C. Child Care

In Part One it was noted that over one-fourth of the women with children in the statewide sample reported barriers associated with child care and employment. The women in the JTPA sample reported this problem much more often. Of these respondents with children, 45.3 percent reported child care barriers. Of the women in the CP survey who had children 59.3 percent reported such barriers. These women are poorer, have less education and are more often single parents. Such women are much more likely to find holding a job to conflict with taking care of their children.

Table 7 shows that cost of child care is a major factor for these groups of women. Nine of ten of the JTPA women and eight of ten of the CP women for whom child care was an employment barrier cited the cost of care as a component of that problem. This supports the idea presented earlier that for low income women this aspect of child care is the most important consideration. Convenience and quality were cited by about two-thirds of the women in each sample.

Table 7 Percent of Women Reporting Child Care Problems who Also Reported Cost, Convenience and Quality of Child Care as Problems (JTPA and CP Samples)

Problem Area	JTPA Sample	Carl Perkins Sample
Cost	89.7%	82.0%
Convenience	65.3%	60.5%
Quality	57.3	65.6%

For these women employment problems associated with family responsibilities are closely tied to issues of transportation and child care. Both of these reflect the difficulties experienced by lower income women in the samples. Over half (52.1 percent) of the JTPA women who reported child care difficulties also reported problems with transportation to and from work. For the women in the CP sample somewhat less than half (44.1 percent) of those reporting child care barriers also reported transportation problems. Higher rates of transportation problems among these women also accounts for the higher percentage who reported convenience of child care to be a problem. As we have noted, women who have problems with transportation to and from work are also limited in their choices of child care. Thus, they are much more likely to report convenience of child care to be a problem.

D. Women's Written Responses about the Programs and about Employment Opportunities.

The written comments of respondents were alluded to in the context of satisfaction with the JTPA program. This discussion is somewhat broader ranging but will reiterate some of the finding cited in the previous section; it includes comments made by respondents in both the JTPA and CP surveys.

About half of the women who responded to the surveys wrote comments. These ranged from a few sentences to long essays and in a few cases letters that were attached to the returned questionnaires.

The following comments are presented in the order of the frequency that they were mentioned by the respondents in the survey.

Low Pay Complaint. This topic was most often mentioned directly and was referred to by implication by the women in the sample. A total of 30 respondents noted that the types of jobs they could seek with their level of training or the only jobs available in their area were very low paying. Women usually were referring to minimum wage jobs. This was often mentioned in the context of being a single parent, or not being able to afford child care or transportation. Women in rural areas particularly often mentioned the latter problem, noting that it did not make economic sense to travel long distances to jobs that paid very poorly. Respondents in the CP sample also mentioned in this context that women whose children were receiving AFDC could not afford to take a minimum wage job that entailed the loss of medical insurance and immediate loss of cash benefits.

Related to the low pay complaint were the comments of another smaller set of women concerning the types of jobs available to women. Comments like "help women get jobs as good as men's" were typical of this group. Also the need for "better jobs for women" in a particular area.

In other research conducted by the Institute of Applied Research it has been shown that JTPA participants who were placed in very low pay or minimum wage jobs after completion of the program were the least likely to be employed later. This was the case for these women as well. The median hourly wage of the women who entered employment after JTPA was $3.85 for this group of women. The question was asked whether the half of the women below the median wage level had retained their employment as well as the women above the median. The finding was that they had not. Of the women earning at or below $3.85 per hour after the program, 70.9 percent were employed at the time of the study. Of the women earning more than $3.85 per hour, 83.8 percent were working at the time of the survey. This is a statistically significant difference.

In part women's complaints about low paying jobs took the form of complaints about the program. They felt that there should be greater efforts on the part of placement personnel to find higher paying jobs for women. There was also the sentiment expressed by some women that there were simply no jobs (or no jobs for women) in their community or geographic area that paid enough to support a family. A few women expressed directly the notion that the minimum wage should be increased.

Child Care. Many women also wrote extended comments on these problems. Twenty-three women in the JTPA sample and 15 women in the CP sample mentioned child care as a major problem in their work (and education) lives. They often generalized their comments to "women like me." Another slightly smaller group of women wrote about the problems of being a single parent and a woman. Child care was often a topic in these discussions.

Two topics were mentioned most often in relation to child care. The first was availability of affordable care. Women felt that they needed some assistance in paying for child care, at least during their training. Some also felt that child care coupled with low pay made work impossible for them. There were variations on this theme: some mentioned employer sponsored child care; others mentioned child care near the employer that they could afford.

The second topic had to do with knowledge of available child care. Some women noted that they did not know whether child care was available and did not know how to find out about it. A few mentioned making "lists" of child care providers available.

Help in Finding Jobs. The third most frequently mentioned topic of the women in the two surveys was help in finding jobs. This comment is related to the low pay complaint already described, because in many cases the women mentioned that they needed help in finding "better" jobs or "jobs as good as men's." In this context a smaller number of women mentioned help in finding jobs that fit the training they had received.

This type of comment was seldom spelled out in detail and so it may be taken as a generalized expression of some women's frustration at finding work or finding work to support themselves and their families. A few women did talk about this problem. For example, two women wrote at length about the lack of help they received from the local Employment Service offices. Several others told about the difficulties they had after completing JTPA training in finding employment.

Another related topic that could stand on its own was mentioned in some detail by eleven women and alluded to by others. This was the requirement of many employers for prior work experience. Several respondents noted the catch-22 nature of this problem. To be hired in their field of training they

need experience, but they have to be hired first to gain experience. Some women suggested that the program should search out employers that would permit women to work for free or very low pay to gain experience. Others were simply bewildered by the problem.

Better Training. Eighteen individuals simply mentioned that they needed training. These were women in the JTPA sample who had received very little training. In addition, women in the CP sample also mentioned this problem. Other women went into detail in their comments on training.

Training in areas relevant to the local job market was listed. There were instances, noted above, in which women felt that the training they received did not fit with the jobs for which people were being hired in their communities. Several mentioned "computer training" or "training on advanced office equipment." Others wrote of "hi-tech" jobs that they would like to be trained for.

Some were dissatisfied that they did not receive skill training but only job search training. Other felt that they did not receive their first choice in training.

Education and training was a topics on the minds of these women. Over half mentioned lack of education as a barrier to employment for them and two-thirds check lack of training as a barrier.

Personal Assistance. There were a set of responses that we have chosen to group together that have to do personal help that they women felt they and women like themselves needed. The first is <u>self-confidence</u>. Older women in particular who were displaced homemakers mentioned this as a problem. They simply did not feel that they had skills that employers wanted and were fearful of seeking employment. On the other hand, younger women mentioned this problem as well. Upwards of one-half of each sample checked the barrier questions that had to do with self-confidence (interviews, qualifications, abilities and looks).

A small minority of women pointed to their weight as a problem in obtaining employment. Four women in the sample felt that had been the victims of racial discrimination.

Several individuals noted that they thought some form of training was needed to help them become more <u>assertive</u>. Finally, some women mentioned the need for continuing assistance after programs are completed. <u>Follow-up</u> to see how women who have been in programs are doing would be useful. Two women mentioned the idea of support groups of women or networking.

3. Trends in Education and Employment

A. Vocational Education

Public vocational education in Missouri is offered at comprehensive high school, area vocational-technical schools and at community colleges in the state--a total of 210 locations at the time of the 1987 study. Vocational education classes cover a broad area including agribusiness and agricultural production, business and office, health occupations, home economics, marketing and distributive, technical, and trade and industrial education.

Classes are offered at both the secondary and post-secondary levels. In addition, classes may be taken in adult education which generally lie beyond the secondary level but do not involve advancement toward a higher education degree. The analysis in this report is restricted to vocational classes at the adult and post-secondary levels.

There continues to be no data source for private proprietary vocational education in Missouri. Some information may be available for the Missouri Coordinating Board for Higher Education on graduates from private schools that are required to report.

This section contains an analysis of data available through the Vocational Education Data System (VEDS). This system records the number of students enrolled in each vocational education class in each public educational institution in the state and is maintained and updated on yearly basis by the Missouri Department of Elementary and Secondary Education (DESE). The enrollments are divided by the gender, race and disadvantaged status of the students.

To examine changes in enrollment of women in vocational education the 1982-3, the 1984-5 and the 1987-8 school years were chosen. The data will serve as a baseline for comparison with enrollments in future years.

Changes in the enrollments of women into traditional and non-traditional vocational education areas were a focus of the study. The method of coding into traditional, non-traditional and mixed is described in detail in the full report. Non-traditional areas included several categories of agricultural classes, most construction, technical and mechanical areas and several categories of management and marketing. The traditional areas of instruction included several business and offices areas, health and health related fields, consumer and homemaking areas, child care and other miscellaneous fields. The mixed areas

included such categories as real estate, horticulture, medical technical services, and some areas of management and marketing that are generally occupied by both men and women.

In Table 8 the enrollments for the three target years have been summed in each of the three categories for both men and women. The percent of all women in traditional, non-traditional and mixed instructional areas are shown for each of the three years.

Table 8 Enrollments in Non-Traditional, Mixed and Traditional Vocational Training Areas, Statewide

	Men 82-83	Women 82-83	Percent of All Women 82-83	Men 84-85	Women 84-85	Percent of All Women 84-85	Men 87-88	Women 87-88	Percent of All Women 87-88
Non-Trad	38985	4277	6.1	39621	8472	9.2	44353	6137	8.4
Mixed	17826	20615	30.0	19969	28133	30.9	20364	22765	31.5
Trad	8202	43822	63.5	7191	54145	59.7	11199	43432	59.8
Total	65013	68714	99.6	66781	90750	99.8	75916	72334	99.7

The first question that may be asked about the table is whether any differences can be detected in statewide data over the six year period. Were more women enrolling in non-traditional classes (for women) in 1987-8 than in 1982-83? The table shows in the first row that the proportion of all women increased from 6.1 percent in 82-3 to 9.2 percent in 84-5 and dropped slightly to 8.4 percent in 87-88? This represented a statistically significant change in the direction of greater enrollment of women in non-traditional areas over this period.

Table 9 shows this same information in a detailed format. Looking at Table 9 it is possible to see the non-traditional instructional areas in which the greatest change occurred. Classes in civil technology and electrical and electronic technology (15.02, 15.03) showed increased proportions of women enrolled as well as increases in the proportion of all women enrolled in vocational education. Likewise mechanical and related technologies (15.08) and quality control and safety technologies included increases both in the percent of women in the classes and in the percent of all women in such courses.

Women also made gains in criminal justice courses (43.01). They also showed increases in vehicle and mobile equipment mechanics and repair (47.06). Women showed increased percentages in the courses in precision metal work (48.05). They also showed dramatic increases in the area of vehicle and equipment operation (49.02)

In general increasing proportions of women enrolled over the six year period a full range of non-traditional instructional areas.

Looking again at Table 8, women also made gains in the mixed instructional categories, although the percentage change was not large (1.5 percent between 82-83 and 87-88). In the traditional instructional areas for women there was a decrease from 63.5 percent of all women enrolled in 82-83 to 59.7 percent in 84-85 and was holding steady at 59.8 percent in 87-88. In Table 9 it can be seen that the greatest decreases occurred in the allied health and consumer and home economics areas. Other traditional areas such as secretarial, accounting and bookkeeping, typing and general office appeared to be holding their own or increasing in the proportion of women who chose these courses.

Table 9. Vocational Education Data System - Report by SDAs

Four Digit CIP	Instructional Area	Percent Women 82-83	Percent of All Women 82-83	Percent Women 84-85	Percent of All Women 84-85	Percent Women 87-88	Percent of All Women 87-88
* Type of Instructional Area: Non-Traditional							
01.01	AGRI BUSINESS & MANAGEMNT	0.0	0.0	0.0	0.0	25.8	0.1
01.02	AGRICULTURAL MECHANICS	5.2	0.1	6.1	0.0	3.0	0.0
01.03	AGRI PRODUCTION GENERAL	20.4	1.3	24.4	1.4	24.5	1.0
01.99	AGRIBUSIN & AGRI PROD OTH	29.2	0.0	31.2	0.0	100.0	0.0
03.04	FORESTRY PRODCTN & PROCES	0.0	0.0	0.0	0.0	0.0	0.0
06.20	TRADE & INDUS SUPRV & MNG	0.0	0.0	0.0	0.0	14.8	0.0
08.09	HOSPTALITY & RECRE MARKTG	38.7	0.1	33.9	0.1	0.0	0.0
10.01	COMMUNICATN TECHNOLOGIES	25.6	0.2	27.3	0.1	39.0	0.1
12.03	FUNERAL SERVICES	31.4	0.0	26.5	0.0	38.6	0.0
15.01	ARCHITECTURL TECHNOLOGIES	27.1	0.1	27.5	0.1	24.8	0.1
15.02	CIVIL TECHNOLOGIES	17.5	0.0	14.7	0.0	25.0	0.4
15.03	ELECTRI & ELECTRO TECHNOL	7.8	0.2	19.5	0.7	18.9	0.5
15.04	ELECTROMECH INSTR & MAIN	7.7	0.0	6.2	0.0	5.5	0.0
15.05	EVIRONM CONTROL TECHNOLG	4.9	0.0	4.1	0.0	8.7	0.1
15.06	INDUSTRIAL PROD TECHNOLG	8.4	0.3	30.5	3.3	9.8	1.6
15.07	QUALITY CTRL & SFTY TECHN	0.0	0.0	12.9	0.1	12.5	0.3
15.08	MECHANICAL & REL TECHNOL	4.6	0.1	11.0	0.1	23.9	0.3
15.80	MECH. & RELATED TECHNOL	0.0	0.0	59.9	1.0	0.0	0.0
23.11	TECHNICAL & BUS. WRITING	9.3	0.0	0.0	0.0	0.0	0.0
27.03	APPLIED MATHEMATICS	2.7	0.0	0.0	0.0	0.0	0.0
43.00	PROTECTIVE SERVICES	0.0	0.0	0.0	0.0	0.0	0.0
43.01	CRIMINAL JUSTICE	32.2	0.8	27.9	0.7	34.4	1.1
43.02	FIRE PROTECTION	6.0	0.0	8.8	0.0	13.9	0.1
46.00	CONSTRUCTION TRADES	0.0	0.0	40.9	0.1	0.0	0.0
46.01	BRIC/STONEMASO, TILE SETG	0.7	0.0	1.4	0.0	0.8	0.0
46.02	CARPENTRY	5.0	0.2	3.2	0.1	1.8	0.1
46.03	ELECT & POWER TRANSM INST	4.1	0.1	2.5	0.0	3.6	0.1
46.04	MISCL CONSTRUCTN TRADES	10.9	0.5	17.4	0.2	8.5	0.0
46.05	PLUMBING, PIPE/STEAMFITNG	3.3	0.1	1.3	0.0	0.1	0.0
46.99	CONSTRUCTION TRADES OTHER	2.1	0.0	1.6	0.0	8.0	0.1
47.01	ELEC/ELCTRON EQUIP REPAIR	20.1	0.6	10.9	0.2	8.6	0.1
47.02	HEAT/AIR COND & REFRIG ME	0.6	0.0	2.7	0.1	2.6	0.1
47.03	INDUS EQUIP MAINT & REPAI	9.1	0.0	1.4	0.0	4.4	0.0
47.04	MISC MECHANICS & REPAIRER	0.0	0.0	0.0	0.0	0.0	0.0
47.05	STATIONARY ENERGY SOURCES	5.4	0.0	0.0	0.0	6.2	0.1
47.06	VEHICLE/MOB EQ MECH & REP	4.0	0.2	2.3	0.1	8.2	0.4
47.99	MECHANICS AND REPAIRERS	0.0	0.0	0.0	0.0	0.0	0.0
48.01	DRAFTING	18.0	0.3	17.3	0.2	18.1	0.1
48.02	GRAPHIC & PRINTING COMM	22.2	0.5	27.7	0.4	29.9	0.5
48.05	PRECISION METAL WORK	2.1	0.2	4.2	0.2	6.2	0.5
48.07	WOODWORING	16.4	0.1	14.4	0.0	10.4	0.1
49.02	VEHICAL AND EQUIP OPERATN	10.4	0.1	8.2	0.0	22.5	0.5
49.03	WATER TRANSPORTATION	0.0	0.0	0.0	0.0	2.1	0.0

Four Digit CIP	Instructional Area	Percent Women 82-83	Percent of All Women 82-83	Percent Women 84-85	Percent of All Women 84-85	Percent Women 87-88	Percent of All Women 87-88
* Type of Instructional Area: Mixed							
01.05	AGRI SERVICES & SUPPLIES	64.4	0.2	33.1	0.3	49.2	0.1
01.06	HORTICULTURE	49.2	0.2	47.1	0.1	58.4	0.2
06.04	BUSINESS ADMIN & MANGMNT	0.0	0.0	0.0	0.0	49.1	1.3
06.17	REAL ESTATE	46.0	0.3	0.0	0.0	0.0	0.0
07.03	BUS DATA PROCESS & RELAT	48.4	10.3	57.2	8.8	58.5	13.9
07.04	OFFICE SUPERV & MANGMNT	65.1	0.5	66.4	0.6	53.1	2.2
07.05	PERSONNEL & TRAINING PROG	81.4	1.0	62.5	1.6	47.2	2.0
08.00	MARKETING AND DISTRIBUTN	56.0	1.8	58.7	5.0	50.4	10.4
08.04	FINANCIAL SERVICES MARKTG	50.0	0.0	0.0	0.0	0.0	0.0
08.07	GENERAL MARKETING	52.3	1.8	55.9	2.9	0.0	0.0
08.08	HOME AND OFF PROD MARKTG	46.9	0.0	0.0	0.0	0.0	0.0
08.10	INSURANCE MARKETING	47.7	0.1	0.0	0.0	0.0	0.0
17.02	DIAGNOSTC & TREATMNT SERV	50.8	0.8	46.8	0.7	47.2	0.8
17.04	MENTAL HEALTH/HUMAN SERV	0.0	0.0	0.0	0.0	100.0	0.1
99.01	VOCATIONAL SPECIAL NEEDS	58.1	9.4	62.6	6.3	48.1	0.4
99.03	COUNSELING	54.0	3.6	60.5	4.6	7.7	0.1
			30.0		30.9		31.5
* Type of Instructional Area: Traditional							
04.05	INTERIOR DESIGN	92.3	0.1	91.1	0.0	86.4	0.1
07.01	ACCNTNG, BOOKKP & RELAT	76.8	3.3	86.0	4.1	62.2	7.4
07.06	SECRETARIAL & RELAT PROG	94.4	10.6	95.6	9.1	88.3	10.8
07.07	TYPNG, GEN OFFICE & RELAT	90.2	4.7	86.7	4.0	73.3	5.5
07.99	BUSINESS & OFFICE, OTHER	77.8	0.3	93.1	0.3	72.7	0.7
08.01	APPAREL & ACCESSOR MARKTG	76.0	0.1	93.8	0.1	0.0	0.0
12.04	PERSONAL SERVICES	97.8	0.1	91.5	0.1	95.5	0.1
17.00	ALLIED HEALTH SERVICES	0.0	0.0	0.0	0.0	94.6	0.1
17.01	DENTAL SERVICES	94.1	0.5	95.2	0.4	95.1	0.3
17.03	MEDICAL & LAB TECHNOLOGY	78.1	0.1	75.6	0.1	76.6	0.1
17.05	MISC ALLIED HEALTH SERV	83.0	0.2	98.0	0.2	91.5	1.0
17.06	NURSING-RELATED SERVICES	93.6	4.8	92.9	3.6	93.3	3.5
17.08	REHABILITATION SERVICES	71.8	0.3	84.9	0.5	74.3	0.3
17.99	ALLIED HEALTH, OTHER	90.8	7.0	93.5	1.5	85.4	4.7
18.07	NURSING ADMINISTRATION	78.3	0.0	0.0	0.0	70.1	0.1
18.11	NURSING	90.8	3.6	83.8	2.4	82.1	2.5
20.01	CONSUM & HOMEMAK HOME ECO	73.7	20.5	86.6	26.1	78.4	12.4
20.02	CHILD CARE & GUID MANG SE	96.2	1.7	97.1	1.5	96.9	6.3
20.03	CLTHNG, APPRL, TEXTL MANG	92.8	0.3	90.5	0.6	91.8	0.1
20.04	FOOD PROD, MANG, AND SERV	85.3	0.8	63.4	1.4	74.1	0.9
20.05	HOME FURN & EQUIP MANG PR	85.6	0.5	88.1	0.3	93.0	0.6
20.06	INST, HOME MANG & SUPPORT	94.1	0.0	0.0	0.0	65.2	1.3
20.99	VOCATIONAL HOME ECON OTHR	78.3	0.6	79.4	0.2	82.1	0.4
48.03	LEATHERWORK & UPHOLSTER	0.0	0.0	81.2	0.0	75.0	0.0
49.01	AIR TRANSPORTATION	0.0	0.0	82.6	0.5	41.8	0.1
99.99	OTHER SPEC NEEDS & CBO	94.1	3.4	98.6	2.7	52.2	0.5
			63.5		59.7		59.8
** Subtotal **							
			99.6		99.8		99.7

B. Occupational Trends

The only source of information on occupational trends among Missouri women that permits analysis according to the requirements of the RFP (i.e. by JTPA Service Delivery Area) is that available in U.S. Census for 1970 and 1980.

Table 10 shows statistics of Missouri and U.S. women in each of several general occupational areas for the 1970 and the 1980 censuses. The occupational areas represent collapsed census categories and include about 95 percent of the labor force for each census year (i.e. a few occupational areas are not included within the categories).

The first portion (A) of the table shows the percentage of women as a part of the total labor force and within each occupational area. The labor force considered here included both part-time and full-time workers. The table shows that women in Missouri grew from 38.4 percent of the labor force in 1970 to 43.2 percent in 1980. Missouri had a slightly higher percentage in both censuses but showed a pattern of growth similar to the United States as a whole.

The labor force participation rate of women was somewhat lower in Missouri, however, than in the United States as a whole. (This is not shown in the table.) For example, in the United State 51.0 percent of women 16 years of age and over were in the civilian labor force in 1979, while in Missouri this percentage was 46.0. Although we have no way of knowing for sure, we assume that Missouri labor force participation grew like the county as a whole. The labor force participation rate of women in United States had risen to 54.5 percent by 1985. If the Missouri proportions grew at a comparable rate Missouri participation rate would have stood at 49.2 percent in 1985.

Continuing to focus on part A of the table, the percentages in each occupational area show areas dominated by men and those dominated by women. Women continued to predominate in the clerical areas (74.0 and 77.9 percent in Missouri) and in the service areas (62.6 and 61.3 percent in Missouri). We can see that the pattern of change in each occupational area between 1970 and 1980 is similar for Missouri and the United States. In this regard Missouri does not differ from the county as a whole. The proportion of women in executive, managerial and administrative areas changed considerable during the decade to include a much larger proportion of women. This pattern is also reflected, although to a lesser degree, in the professional and technical fields. The sales field also showed a slight increase in the proportion of women. On the other hand, factory and manufacturing occupations (Operators, etc.) and service occupations showed an increased proportion of men over the decade.

The second portion of the table (B) shows a breakdown of the percentage of all women in the labor force who were working each

occupational areas. This shows how the whole female labor force was redistributed across occupational areas between the two censuses. Again, the percentages differ between Missouri and the United States but the patterns of change across the decade were rather similar. Women appeared to shift in Missouri and the country as a whole from clerical and service occupations (categories continually dominated by women workers) to professional, technical and managerial occupations. (Missouri's decline in the service area was on the whole less dramatic than that of total women in the country.) A large shift was also seen among all women working to sales occupations. The decline in operators and fabricators reflects the decline in the occupations for both men and women.

Most observers believe that these trends have continued during the 1980's. At this writing (1989) the data has been gathered for the 1990 census. In a very short time, therefore, we will be able to compare these baseline statistics with changes during the decade of the 80's.

Table 10. Women in Occupations Areas, Missouri and U.S. 1970-1980

SDA	Year	Employed Percent Women	Professional/ Technical	Executive Administr. Managerial	Sales	Administr. Support & Clerical	Operators Fabricators	Farming	Service
A. Percent of Individuals in Occupational Areas Who were Women									
Missouri									
	70	38.4	43.0	16.6	40.2	74.0	30.7	5.7	62.6
	80	43.2	47.9	30.3	46.8	77.9	27.6	14.1	61.3
United States									
	70	36.9	39.5	16.1	38.0	72.9	39.1	7.6	59.2
	80	41.9	44.3	29.4	47.0	77.8	26.4	15.0	58.6
B. Percent of All Employed Women in Each Occupational Area									
Missouri									
	70		15.2	3.5	7.4	35.1	14.1	0.7	20.9
	80		14.6	6.7	11.0	30.6	12.2	1.3	19.2
United States									
	70		15.8	3.6	7.2	34.9	15.1	.6	20.0
	80		15.8	7.8	12.0	32.2	10.8	1.0	16.3